

AMENDMENTS TO THE CLAIMS

1-30. (Cancelled)

31. (Currently Amended) A method for testing a light-emitting panel during a process of manufacturing the light-emitting panel, comprising:

selecting at least one point within the manufacturing process of the light-emitting panel for testing, the one point within the manufacturing process resulting in a portion of the light-emitting panel;

wherein the light-emitting panel includes a plurality of micro-components containing ionizable gas;

obtaining the portion of the light-emitting panel;

testing the portion of the light-emitting panel;

determining if the portion of the light-emitting panel is produced within acceptable tolerances.

32. (Previously presented) The method of claim 31, wherein the manufacturing process comprises manufacturing a plurality of light-emitting panels and the selecting at least one point comprises selecting the portion of the light-emitting panel for testing from among a plurality of portions of light-emitting panels.

33. (Previously presented) The method of claim 32, wherein selecting the portion of the light-emitting panel comprises:

monitoring a series of portions of light-emitting panels being manufactured; and

selecting at a regular interval a set of portions of light-emitting panels for testing from the series of portions of light-emitting panels.

34. (Previously presented) The method of claim 33, further comprising varying the regular interval at which the portions of the light-emitting panels are selected for testing.

35. (Previously presented) The method of claim 33, wherein selecting the set comprises selecting each portion of the light-emitting panel for testing.

36. (Previously presented) The method of claim 31, wherein the manufacturing process comprises a plurality of manufacturing steps and wherein selecting at least one point comprises selecting each time in the manufacturing process that one of the manufacturing steps is completed.

37. (Previously presented) The method of claim 31, wherein testing the portion of the light-emitting panel comprises obtaining a measurement of at least one characteristic of the portion of the light-emitting panel and determining comprises determining if the measurement falls within a range of acceptable values.

38. (Previously presented) The method of claim 37, wherein:

the manufacturing process comprises manufacturing a plurality of light-emitting panels;
selecting comprises selecting a plurality of portions of light-emitting panels for testing;
and

obtaining comprises obtaining measurements on the plurality of portions of light-emitting panels;

the method further comprising:

storing the measurements to produce a plurality of stored results;
analyzing the plurality of stored results for patterns of consistent non-conformity;
and adjusting the manufacturing process based on the patterns of consistent non-conformity to increase a number of the portions of light-emitting panels that have measurements falling within the range of acceptable values.

39. (Previously presented) The method of claim 31, further comprising adjusting the manufacturing process step when that the portion of the light-emitting panel is not within acceptable tolerances.

40. (Previously presented) The method of claim 39, wherein the adjusting of the manufacturing process is performed automatically upon a determination that the portion of the light-emitting panel is not within acceptable tolerances.

41. (Previously presented) The method of claim 31, wherein selecting comprises selecting the portion of the light-emitting panel after at least one step in the manufacturing process, the manufacturing process comprising a micro-component forming step, a micro-component coating step, a socket formation step, an electrode placement step, an enhancement material placement step, a patterning step, a material layer placement step, a material layer conforming step, a material layer removing step, a micro-component placement step, an alignment step, and a panel dicing step.

42. (Previously presented) The method of claim 31, wherein the manufacturing process is a web manufacturing process and the selecting comprises selecting the portion of the light-emitting panel during the web manufacturing process.

43. (Currently Amended) A method for manufacturing a light-emitting panel, comprising:

providing a first substrate;

forming a cavity on the first substrate;

obtaining a micro-component, wherein the micro-components comprises a shell at least partly filled with ionizable gas;

placing the micro-component in the cavity;

providing a second substrate opposed to the first substrate such that the micro-component is disposed between the first and second substrates;

placing at least two electrodes on at least one of the first or second substrates for producing a voltage across the micro-component;

completing the manufacturing of the light-emitting panel, a portion of the light-emitting panel being manufactured prior to the completing of the light-emitting panel;

testing the portion of the light-emitting panel; and

determining if the portion of the light-emitting panel is produced within acceptable tolerances.

44. (Previously presented) The method of claim 43, wherein testing is performed after providing the first substrate.

45. (Previously presented) The method of claim 43, wherein testing is performed after forming the cavity in the first substrate.

46. (Previously presented) The method of claim 43, wherein testing is performed after obtaining the micro-component.

47. (Previously presented) The method of claim 43, wherein testing is performed after placing the micro-component in the cavity.

48. (Previously presented) The method of claim 43, wherein testing is performed after providing the second substrate.

49. (Previously presented) The method of claim 43, wherein testing is performed after placing the at least two electrodes.

50. (Previously presented) The method of claim 43, wherein testing comprises testing the first substrate.

51. (Previously presented) The method of claim 43, wherein obtaining the micro-component comprises forming the micro-component and testing comprises testing the micro-component.

52. (Previously presented) The method of claim 43, wherein testing comprises testing the second substrate.

53. (Previously presented) The method of claim 43, wherein testing comprises testing the cavity in the first substrate.

54. (Currently Amended) The method of claim 43, wherein testing comprises testing the at least ~~lest~~ two electrodes.

55. (Previously presented) The method of claim 43, further comprising placing a coating on the micro-component and the testing comprises testing the coating.

56. (Previously presented) The method of claim 43, further comprising placing an enhancement material on at least one of the first and second substrates and the testing comprises testing the enhancement material.

57. (Previously presented) The method of claim 43, wherein placing the at least two electrodes comprises forming conductive patterns and wherein the testing comprises testing the conductive patterns.

58. (Previously presented) The method of claim 43, wherein providing the second substrate comprises aligning the second substrate to the first substrate and wherein the testing comprises checking an alignment of the first and second substrates.

59. (Previously presented) The method of claim 43, further comprising dicing the first and second substrates to form plural light-emitting panels and wherein testing occurs after the dicing of the first and second substrates.

60. (Currently Amended) The method of claim 43, wherein testing comprises testing after each of providing the first substrate, forming the cavity, obtaining the micro-component, placing the micro-component in the cavity, providing the second substrate, and placing the at least ~~east~~ two electrodes.

61. (Previously presented) The method of claim 43, further comprising manufacturing a plurality of light-emitting panels and wherein testing comprises:

selecting a plurality of portions of light-emitting panels for testing;

obtaining measurements on the plurality of portions of light-emitting panels;

storing the measurements to produce a plurality of stored results;

analyzing the plurality of stored results for patterns of consistent non-conformity;

and adjusting the at least one of providing the first substrate, forming the cavity, obtaining the micro-component, placing the micro-component in the cavity, providing the second substrate, and placing the at least two electrodes based on the patterns of consistent non-conformity to increase a number of the portions of light-emitting panels that are produced within acceptable tolerances.